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STRATEGIES FOR DEVELOPMENT OF TELECOMMUNICATIONS IN AFRICA DURING THE NEXT DECADE, 1991-2000

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TABLE OF CONTENTS

I. INTRODUCTION

II. UNTACDA PROGRAMMES

III. UNTACDA II PROGRAMME FOR TELECOMMUNICATIONS AND BROADCASTING

IV. CONCLUSION

ANNEXES

1. Global Objectives of UNTACDA

2. Objectives for Telecommunications sector

3. Objectives for Broadcasting Sector

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I. INTRODUCTION

1. The important role of telecommunications within the economic development efforts is no longer a subject of debate. The issue was in fact settled as early as 1982 when the Plenipotentiary Conference of the International Telecommunications Union (ITU) put on record its recognition of "the fundamental importance of communications infrastructures as an essential element in the economic and social development of all countries".

2. Of course in the case of Africa, this fact had long been realized and tackled since 1962 when in Dakar, the idea of a Pan-African Telecommunications Network was born. Commonly known as PANAFTEL, this system now forms the backbone of African telecommunications system.

3. In 1978, when a special programme for the development of transport and communications in Africa, known as the United Nations Transport and Communications Decade for Africa (UNTACDA) was declared for the Decade 1978-1988, telecommunications was a major component of that programme. In fact it is fair to say that the UNTACDA programme was a model for other sectoral components of the now famous Lagos Plan of Action for sustained African development which was launched in 1980, a full two years after UNTACDA.

4. Subsequent major events have taken place in Africa which reinforce the importance which is attached to telecommunications as an essential input into the development effort of Africa. I have already referred to the 1982 Plenipotentiary Conference of the ITU in Nairobi, where an Independent Commission for World-wide Telecommunications Development was set up with the express mandate to recommend ways in which the expansion of telecommunications across the World could be stimulated.

5. The report of this Commission was presented at the first World Telecommunications Conference which was, significantly enough, held at Arusha, Tanzania in 1985.

6. The Arusha Conference was subsequently followed by AFRICA TELECOM 86 in Nairobi, Kenya, which included exhibitions as well as World Telecommunication Forum. In early 1987 the African Telecommunications Development Conference was held in Tunis to draw up a plan of action for development, and from 1989 to the present, efforts are underway to draw up a ten-year programme for development of telecommunications in Africa within the framework of the Second United Nations Transport and Communications Decade in Africa (UNTACDA II) to be implemented during the last decade of this century.

7. Obviously, this chronology of events would not be complete without reference to the ongoing feasibility study project for the establishment of a Regional African Satellite Communications System commonly referred to as RASCOM. This project has reached a stage where a special Conference of African Ministers in Charge of Telecommunications has been scheduled in Nigeria in February 1991 to take a decision whether or not Africa will launch its special communications bird in the sky.

8. What is our goal? you might ask. The answer to that question is simple. In the words of the Commission, "There is, in our opinion, no good reason why by the early part of the next century virtually the whole of mankind should not be within easy reach of a telephone and all the benefits this can bring." For Africa, this means that communications should no longer be a constraining factor in our development by the year 2000.

II. THE UNTACDA PROGRAMMES

9. The need to improve transport and communications at Africa's present stage of development has been recognized in several ways. The large capital investments (ranging between 20 and 40 per cent of all public sector investments) which African countries normally allocate for the development of the transport and communication sectors stem from each country's realization of the importance of the transport and communications systems in the overall development of Africa. It was in recognition of the need to highlight the importance of these sectors that in March 1977 the Conference of Ministers of the United Nations Economic Commission for Africa (ECA) adopted a resolution recommending that a Decade be proclaimed in order to focus attention on the special needs of Africa. This recommendation was endorsed by the United Nations Economic and Social Council (ECOSOC) at its meeting in July 1977 and the United Nations Transport and Communications Decade in Africa (UNTACDA) was officially proclaimed by the General Assembly of the United Nations in December 1977 to cover the period 1978-1988.

10. The integration of the African economies and the attainment of full regional collective self-reliance involves three mutually interdependent dimensions, namely, the integration of the physical (i.e. transport and communications), institutional and social infrastructures; the integration of the production systems; and the integration of the African markets. Experience has shown that no breakthrough in regional integration can be achieved if the infrastructure to sustain the regional production structures and markets are not adequately integrated. Of particular importance in this regard is the transport and communications sector. Hence the increased importance which has been accorded this sector in the various African restructuring and development programmes of the 1980's.

11. In the ten years during which Africa implemented the first programme of the United Nations Transport and Communications Decade in Africa (1978-1988), significant progress was achieved in the overall development of these sectors. However, a recent evaluation of the implementation of this programme also reaffirmed the fact that the existing transport and communications systems in Africa are still far from adequate and continue to constitute major constraints on the overall economic integration and development of the region.

12. Following the recommendations of an independent team of consultants who carried out the in-depth evaluation of the impact of the Decade programme, the Conference of African Ministers of Transport, Communications and Planning, at its sixth meeting at Kinshasa, Zaire in March 1988, reaffirmed Africa's commitment to the concerted development of transport and communications sectors within the framework of another Decade programme. This was later supported by the United Nations Economic and Social Council in July 1988, as well as by the United Nations General Assembly when it declared on 20 December 1988, the years 1991-2000 as the Second United Nations Transport and Communiations Decade in Africa (UNTACDA II).

Global objectives of UNTACDA II

13. The goal of the UNTACDA II programme is to establish an efficient integrated transport and communications system as a basis for the physical integration of Africa and facilitate national and international traffic, so as to foster trade and the achievement of self-sustaining economic development as called for in the Lagos Plan of Action (1980) and subsequent African regional and subregional economic restructuring and development programmes.

14. Thus, the UNTACDA programme aims at the transformation of existing systems. The need for short-term measures, namely the maintenance and rehabilitation of existing and mostly outward-oriented systems will be balanced with the need for long-term planning and objectivity. Additionally, sustained development implies availability of indigenous capability to carry on the work started through external assistance not only for their maintenance and efficient operations but also to manufacture some fundamental components of the system. Therefore, manpower development and use of local resources are very important aspects of the programme. Finally, urban and rural areas as well as safety and security are given high priority in the programme.

15. A total of ten thrust areas have been identified and translated into sector-specific objectives with clearly defined areas of immediate action. These are shown in the annexes to this report.

III. UNTACDA II PROGRAMME FOR TELECOMMUNICATIONS AND BROADCASTING SECTOR

16. The effectiveness of telecommunication system in delivering conventional as well as new services greatly depends on the attitude and policies adopted on maintenance. The performance levels of all equipment should be measured and appropriate plans should be developed to keep the efficiency level acceptable to users. Management of spare parts, development of skills and competence of the technical staff as well as structuring of an appropriate organ to undertake the responsibility of maintenance are among the few essential elements that will have to be considered to improve the quality of telecommunication services. In consideration of these points and others, maintenance and rehabilitation of equipment and plants have emerged as one of the important objectives in the second Decade.

17. Of equal importance is the objective for the development and rational utilization of human resources. African countries have faced serious shortages of skilled and well trained professionals both in the administrative and technical sectors. In particular for the technical sector, where installation of equipment of the new generation are the trends followed for expansion of existing services as well as for providing new ones, the need to acquire competent staff is even more pronounced. In the objectives drawn out for second programme, therefore, human resource development is accorded one of the highest priorities.

18. The Decade programme also emphasizes the need for the improvement of management of telecommunications services. Users are demanding a range of services with the efficiency acceptable to them. Modern telecommunication administration will have to respond to these demands by re-organizing and adopting new management styles.

19. Operating in the areas of highly competitive market in an environment of fast changing technology requires systematic planning taking into consideration all the technical and economic options to deliver the services required by the users at the cost and efficiency they are prepared to accept. The absence of such systematic planning could end up with costly undertaking in the re-configuration or re-arrangement of equipment and facilities and, in some cases, in the provison of new ones. The establishment of effective and operational planning units within national telecommunication administrations has therefore constituted one of the essential areas of concentration in the development of telecommunication services.

20. In order to increase operational efficiency and respond adequately to new and conventional services, restructuring along the line of giving more autonomy to the administrations in order to enable them to function as a business enterprise has also been highlighted in the objectives drawn for the sector. Commercialization is one of the aspects included in the area of concentration with a view of further improving operational efficiency.

21. In spite of the efforts made during the first Decade, the development of telephone penetration was not impressive. It was only possible to attain an average density of 0.71/100 inhabitants for the whole of Africa at the end of 1988. It is evident from this figure that resources will have to be mobilized to develop telecommunication networks at a much faster pace. The number of lines in major cities as well as in economic centers will have to be expanded. The communication needs in the rural community should be given equal attention so as to assist in the development of agriculture. It is therefore envisaged that the second Decade will focus on the development of an integrated telecommunication network and services geared to the urban and rural populations.

22. one of the constraints which attribute to the low rate of telecommunication infrastructure development is the absence of any sizeable manufacturing enterprise on telecommunication equipment. Since the equipment

used in the expansion of the network in Africa is often designed without taking into account the specific nature of the African environment, the need is felt to initiate research and development programme with a view to creating a telecommunication industry for products which are suitable to African conditions. While this could be regarded as the long-term objective, in the short term, emphasis is made on the manufacturing of spare parts, components, etc. to strengthen the maintenance capability and to minimize foreign exchange outlay.

23. African countries through the PANAFTEL programme have allocated a good portion of their scarce resources on foreign currency and established terrestrial as well as satellite links. Effective utilization of these systems for African traffic has not been possible due to among other factors: (a) lack of tariff agreements at subregional and regional levels; (b) the slow rate of using the agreed traffic centers for routing African traffic. Harmonization and implementation of tariff agreements, and the use of African centers for traffic routing have been accorded an important place in the Decade programme

24. Only few of the main concentration areas in the long term objective for the development of telecommunications have been highlighted. The remaining ones, which are by no means less important, are shown in Annex 2. These include the completion of the missing links of the PANAFTEL network and the implementation of the RASCOM project. Being regional projects, both will assist in the integration of Africa and promote intra-African and external trade.

Broadcasting

25. The long term objective of the broadcasting programme of UNTACDA II is to develop broadcasting services in order to provide an effective means of diffusing information that will support socio-economic development, improve management and operation of broadcasting services and strengthen regional exchange of programme.

26. To fulfil the above objectives, concentration areas which insure the examination of all key issues and constraints and the formulation of a programme of action for the development of broadcasting services in Africa were identified. These areas of concentration , eight in all, focus on issues which are relevant to the African situation (refer to Annex 3).

27. On the technical side they underline the need of conducting soil conductivity measurements and the study of the propagation problems in Africa. Both of these measures aim at providing engineers with the appropriate tool to design effectively the coverage of broadcasting services.

28. The other issue on technical matters is the availability of low cost receivers and professional broadcasting equipments. Feasibility study to manufacture the above equipment for the African environment has also been emphasized in the objectives drawn.

29. As in the case of telecommunication services, skilled and trained personnel are in great shortage to maintain systems in good operational condition. The technological improvement achieved in the modern broadcasting equipment and facilities, both for radio and television services, has further increased the demand for highly trained staff. The need for human resources development to cope with these changes is recognized at national level and the establishment of audiovisual institute at subregional and regional levels.

30. Facilitation of news distribution through radio and television has appeared as a prominent feature in the establishment of networks for daily exchange of news and information among African countries.

31. The implementation of the Development of Broadcasting in Africa (DBA) programme as called for in the recommendation 4 of the African Telecommunication Development Conference (Tunis, 1987) and the promotion of rural broadcasting services have also received equal attention in the general framework of the objective.

32. In the above few paragraphs an attempt has been made to point out the focal areas of the global objective and to elaborate on the objectives pertaining to telecommunications and broadcasting services. The broad objectives of the sector were further subdivided into a number of areas of concentration so as to take into account all the essential elements for the development of coherent services.

33. Given the above global and sectoral objectives what remains now is to highlight the approach and method of work adopted by all the active partners involved in the Decade Programme.

IV. CONCLUSION

34. To ensure a proper and successful implementation of the Decade, mechanisms for co-ordination and implementation have been set up at regional, subregional and sectoral levels to work in co-operation with the existing national structures organized under the National Co-ordinating Committee.

35. At the regional level, ECA has been designated by the UN General Assembly as the "lead agency" with overall responsibility for the whole Decade programme, including co-ordination of the implementation of the Decade programme at all levels and assisting in the mobilization of the resources required. In carrying out this work, ECA, in collaboration with the Secretariat of the Organization of African Unity, cooperates through an Inter-Agency Co-ordinating Committee (IACC) with all other relevant UN organizations and African intergovernmental organizations. This Committee meets regularly once a year.

36. Working groups have been established to prepare programmes of the four major subregions and seven subsectors of transport and communications. Their programmes are developed to address the needs which have been identified at the national level by the National Co-ordinating Committees.

37. A conference of Ministers responsible for transport and communications matters meets every two years to follow up the implementation of the programme, to define the means for mobilizing the resources needed, as well as to deal with policy issues.

38. The stated purpose of the Decade programme is to improve the development of transport and communications in Africa. Operationally, the Decade is designed as the vehicle for cooperating among African member States themselves and their organizations, between African organizations and United Nations agencies, between Africa and the international community at large. Through the Decade programme, it is expected that agreements on priority and high-impact areas will be reached so that investments in these sectors would yield maximum benefits.

39. Thus, the mobilization of the necessary financial and technical resources to implement the programme is of highest priority. This is why the Conference of African Ministers of Transport, Communications and Planning set up a Resource Mobilization Committee composed of the African Development Bank, the Organization of African Unity, the European Economic Community, the World Bank, the United Nations Development Programme and the Economic Commission for Africa.

40. Ofcourse the Decade is a programme of the African member States who are, in the final analysis, the ones responsible for African development. As such, the successful implementation of the programme at the national and subregional levels will, by and large, determine the success of this second international effort to develop transport and communications sectors in Africa.

GLOBAL OBJECTIVES FOR UNTACDA II PROGRAMME

Objective 1: Implementation of phased and balanced programme of development and management of transport and communications infrastructure, taking particularly into account the needs and requirements of island and land-locked countries.

Objective 2: Rehabilitation, Upgrading and Maintenance of the most critical elements of the existing infrastructure and equipment so as to improve their efficiency and capacity utilization, as well as prolong their economic life.

Objective 3: Human Resource Planning, Development and Utilization in order to enhance the quality and availability of personnel at all levels for efficient management and operations of transport and communications systems.

Objective 4: Improvement of operational efficiency, service quality and availability in transport and communications by implementing appropriate policies and administrative measures that will increase their competitiveness, productivity and profitability, while at the same time ensuring social and economic development.

Objective 4: Establishment of information systems on transport and communications as a basis for analysis and better management and planning of investments.

Objective 6: Development of manufacturing capabilities in order to cope with the rapid changes in technology and condition in the transport and communications market and to reduce cost and requirements for foreign exchange by local manufacture of some spare parts, components and equipment.

Objective 7: Improved Transport Safety and Security as well as the strengthening of transport related environmental protection measures.

Objective 8: Improvement of transport and communications in rural areas where the majority of the population lives and greatest percentage of economic production takes place.

Objective 9: Improvement of urban transport to meet the needs of the rapidly growing urban population.

Objective 10: Establishment and strengthening of inter-regional liaisons in the field of transport and communications

OBJECTIVES FOR TELECOMMUNICATION SUBSECTOR

Telecommunications

Long-term objective: Development of an integrated telecommunications network based on well-defined national subregional and regional policy guidelines for development including, among other things, the accessibility to telephones in rural areas.

Areas of concentration

(i) Management, development and rational utilization of human resources;

(ii) Maintenance, rehabilitation and modernization of existing telecommunicaton infrastructural facilities;

(iii) Improvement in the management of telecommunications services;

(iv) Establishment of effective and operational planning units within national telecommunication administration;

(v) Establishment, harmonization and implementation of tariff agreements at subregional and regional levels;

(vi) Promotion of transiting of a high percentage of intra-African communications through centres in Africa by utilizing the installed PANAFTEL Network;

(vii) Development of research and manufacturing capacity;

(viii) Completion of the missing links of the PANAFTEL Network;

(ix) Implementation of the RASCOM project;

(x) Strengthening of the Pan-African Telecommunications Union (PATU);

(xi) Provision of services for special users such as news agencies, air transport, broadcasting and meteorological services,

(xii) Extention of services into rural areas;

(xiii) Promotion of institutional restructuring of existing organizations for improving operational efficiency and the process of commercialization of these organizations;

(xiv) Promotion of new services, particularly those which deal with data communication and information, in order to support regional and international trade.

OBJECTIVES FOR BROADCASTING SUBSECTOR

Broadcasting

Long-term objective: To develop broadcasting services in order to provide an effective means of diffusing information that will support socio-economic development, improving management and operations of broadcasting services and strengthen regional programme exchange.

Areas of concentration:

(i) Conduct surveys to measure soil conductivity and weakening of propagation;

(ii) Establish a network for the daily exchange of television news and programmes among African countries;

(iii) Develop human resources at all levels including the establishment of audio-visual institutes at regional and subregional levels;

(iv) Establish subregional centres for studies on rural radio services in Arabic-English- and Portuguese-speaking areas, similar to the one for French-speaking areas located in Ouagadougou;

(v) Intensify efforts towards the implementation of the Development of Broadcasting in Africa (DBA) programme as called for in Recommendation 4 of the African Telecommunications Development Conference (Tunis, 1987);

(vi) Conduct feasibility studies on the manufacture of professional broadcasting equipment and low-cost receivers for the general public;

(vii) Promote rural broadcasting;

(viii) Strengthen URTNA.